

## IN THE SPECIFICATION

At Pg. 1 line 19, please replace the heading "BACKGROUND AND SUMMARY OF THE INVENTION" with the following heading:

## BACKGROUND OF THE INVENTION

Please replace the paragraph beginning at Pg. 7 line 17 with the following paragraph.

Referring further to Fig. 1, the assembly 1 for purifying water has two fluid input ~~ports~~ parts, they being an atmospheric air input port 8 and a contaminated water input port 16. Atmospheric air may be drawn into and through the air input port 8 by an electric motor-driven air compressor 10, electrical power being supplied to the air compressor 10 via an electrical power cord 11 (Electrical circuitry and wiring of the assembly is common and is not completely shown). Compressed air from the air compressor 10 is driven through air line 14 into and through a high intensity ultraviolet light ozone gas generator 4, such ozone generator 4 having an electric ballast 6 conventionally powered via electric power cord 21. The high intensity ultra-violet light ozone generator 4 has a hollow bore through which the atmospheric air passes, the hollow bore typically having an axially mounted ultraviolet light emitting element. Exposure of diatomic oxygen within the bore of the ozone generator 4 to the ultraviolet light breaks down such molecules, producing free atomic

oxygen which rapidly reacts with unbroken O<sub>2</sub> molecules to form ozone gas.

Please replace the paragraph beginning at Pg. 11 line 13 with the following paragraph.

Further referring simultaneously to Figs. 1 and 2, it is desirable that water containing pathogens or undesirable dissolved solids contain a high concentration of dissolved ozone gas for a length of time sufficient to allow beneficial reactions between the dissolved ozone gas molecules and the contaminants. Accordingly, in the instant inventive assembly, the bubble separator column 26 further functions as an enhanced concentration chemical reaction chamber. Performance of such function is accomplished through the installation of a solenoid valve 38 which controls water flow through the lower outlet port 30 of the bubble separator column 26. The solenoid valve 38 is spring biased in a normally open position, assuring that water continues to flow out of the bubble separator column 26 upon cut off of electrical power.

Please replace the paragraph found at Pg. 19 line 7 with the following paragraph.

In addition to an ozone and ultraviolet-producing apparatus mounted within hollow region 84, a bubble separator generally as described above, generically shown as a float 98 and float valve 100, may also be mounted in

hollow region 84. Valve 100 is constructed so as to vent air from hollow region 84 responsive to float 98 ~~falling~~ rising to a point that opens valve 100. Air so vented passes from hollow region 84 via a tube or aperture 102. Float 98 and valve 100 may be configured as described above so as to produce a hysteresis effect wherein the water level cycles between a high point almost fully submerging tube 92 to a low point wherein tube 92 is almost fully exposed to gas in hollow region 84. This embodiment may be used in an enclosed area, such as in conjunction with an indoor spa or hot tub in order to prevent ozone from being expelled into the air. This ozone destruction occurs when the water level falls, exposing the gas in region 84 void of water to ultraviolet radiation. Here, tube 92 blocks most of the 185 nm wavelength of the ultraviolet light, the wavelength that creates ozone, and passes the 254 nm wavelength, the wavelength that disassociates ozone into molecular oxygen and a free atom of oxygen. In outdoor or other environments where minor outgassing is not a concern, the float 98 and valve 100 may be configured to maintain a relatively constant level within hollow region 84 and the gas released by bubbles simply vented to atmosphere, as illustrated by dashed line tube 104 shown connected to expel gasses from float valve 100.

Please replace the paragraph beginning at Pg. 21 line 20 with the following paragraph.

Referring to Fig. 10, a A base 120, illustrated in dashed lines, serves to cap a bottom end of body 114 and is integrally constructed to contain venturi 110 and a water outlet 122. Here, the venturi 110 may be formed by providing a relatively large bore 111 at the water inlet, and providing a pair of inserts 113, 115 within the bore, the inserts having conical hollows 117, 119, respectively, to form the venturi. The inserts may be separated by a disk 121 having a passageway or opening 123 communicating with suction tube 108. Such a construction has the advantage of being able to adjust or tune the venturi in accordance with water flow through the apparatus by replacing the inserts 113, 115 with other inserts and discs having differently configured conical hollows in order to alter the operational characteristics of the venturi. The outflow from the venturi is channeled by base 120 into one of tubes 69 that serves as the initial contact flow tube as described above. Alternately, a venturi similar to a venturi such as described in Applicant's patent number 6,192,911, issued 02/27/2001, may be simply attached to base 120 to provide a flow of water mixed with ozonated air to the first contact tube.